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In the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

1.-34. Canceled.

35. (new) An energy absorbing system for absorbing impact energy in a vehicle collision, comprising:

an elongated structural beam with a relatively flat face; and
a thermoformed energy absorber supported on the face, the energy absorber being formed from a single sheet of material by a thermoforming process to have a base flange and a plurality of thermoformed longitudinally-elongated crush boxes that extend generally perpendicularly from the base flange in a fore/aft direction parallel a direction of expected impact; the crush boxes each having opposing side walls and orthogonally-related end walls and a side-wall-supported front wall with the crush boxes each being spaced apart from each other along the base flange; the crush boxes each defining a separate rearwardly-facing opening and the side walls, end walls, and front walls being continuous;

the energy absorber defining a forward-facing surface and a rearward-facing surface, each being open and unobstructed in a linear direction parallel the fore/aft direction and not having undercut surfaces, whereby the energy absorber can be thermoformed from the sheet of material by passing a portion of mold tooling in a forming direction parallel the fore/aft direction through the base flange linearly into the rearwardly-facing openings defined by the crush boxes; the opposing side walls being stretched during the thermoforming process and having a thickness dimension less than a thickness of the front walls and of the base flange due to the thermoforming process.

36. (new) The system defined in claim 35, wherein the structural beam has a first face surface defining a relatively-flat first shape and wherein the front walls define a second face surface having a relatively non-flat second shape different than the first shape, the second

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shape being adapted to engage and support a fascia.

37. (new) The system defined in claim 35, wherein the crush boxes have at least one laterally-defined concavity in one of the side walls such that the crush boxes, in front view, define one of an "I" shape, and "O" shape, an "H" shape, a "T" shape, an "X" shape, and a "C" shape.

38. (new) The system defined in claim 37, wherein at least one of the side walls has a wavy shape with undulations that extend parallel the fore/aft direction.

39. (new) The system defined in claim 37, wherein the crush boxes are spaced longitudinal and each extends vertically at least half of a total vertical dimension of the energy absorber.

40. (new) The system defined in claim 36, wherein, starting at a center of the energy absorber, inboard ones of the crush boxes have a different height dimension in the fore-aft direction than outboard ones of the crush boxes.

41. (new) The system defined in claim 35, wherein the opposing side walls define planes that extend generally parallel the fore-aft direction.

42. (new) The system defined in claim 35, wherein at least one side wall includes a front portion defining a first plane, a second portion defining a second plane parallel the first plane, and an offset connecting portion that, when the system is impacted, causes the first and second portions to telescope overlappingly onto each other.

43. (new) The system defined in claim 35, including a second sheet of material bonded to the single sheet of material and forming air-filled air-cushioning pockets within the crush boxes.

44. (new) The system defined in claim 43, wherein the second sheet of material includes vents for controlling flow of air exiting the air-cushioning pockets.
45. (new) The system defined in claim 35, wherein the face of the structural beam includes one of a depression feature and a protrusion feature, and the base flange includes the other of the depression feature and protrusion feature, and wherein the one feature engages the other feature to retain the energy absorber on the face of the structural beam upon an impact against the system.
46. (new) The system defined in claim 45, wherein the depression feature is a channel, and the protrusion feature is a ridge.
47. (new) The system defined in claim 35, including a thermoformed second energy absorber with second crush boxes formed therein that mate against the first-mentioned crush boxes.
48. (new) The system defined in claim 35, wherein the crush boxes have a transverse cross section with a maximum height dimension of about 35 mm.
49. (new) The system defined in claim 48, wherein at least some crush boxes have a height dimension is a maximum of about 25 mm.
50. (new) The system defined in claim 35, wherein the side walls have thicknesses of less than about 2.0 mm.
51. (new) The system defined in claim 35, wherein the thermoformed energy absorber includes a material having a memory and that will recover to a near-original shape after being crushed.

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52. (new) The system defined in claim 35, wherein the base flange includes flexible sections located between the crush boxes, such that the energy absorber is bendable and is adapted to flexibly deform to engage a face of a curvilinearly swept beam.

53. (new) The system defined in claim 35, including a second energy absorber positioned on and engaging the face of the component and having a front surface engaging and supporting the thermoformed energy absorber.

54. (new) The system defined in claim 35, wherein the beam is tubular.

55. (new) A system comprising:
a beam having a face and at least one elongated recess formed in the face; and
a thermoformed energy absorber formed from a sheet of polymeric material and having a base flange and crush boxes formed in the energy absorber in a direction perpendicular to the base flange and further having at least one thermoformed ridge extending from the base flange into engagement with the recess to retain the energy absorber on the face during a vehicle crash.

56. (new) The system defined in claim 55, wherein the recess comprises a longitudinally-extending channel formed in a face of the beam.

57. (new) A system comprising:
a metal beam having a face;
a first polymeric energy absorber having energy-absorbing blocks selected from one or both of hollow crush boxes and foam blocks; and
a thermoformed second polymeric energy absorber covering a substantial portion of a front of the first polymeric energy absorber, the second polymeric energy absorber including a base flange engaging the first polymeric energy absorber and including at least one crush box formed therein.

58. (new) The system defined in claim 57, wherein the first and second polymeric energy absorbers are formed from first and second sheets of material, respectively, and include mating surfaces that frictionally and detentingly engage to retain the energy absorbers together.

59. (new) An energy absorbing system comprising:
a beam having a face;
an energy absorber abutting the face including a thermoformed component; and
a cover covering the beam and the energy absorber;
the thermoformed component having a base sheet adjacent the face and a plurality of crush boxes extending forwardly from the base sheet into engagement with the fascia; the crush boxes each having opposing side walls and a front wall that define orthogonally-related planes, and also having top and bottom walls that are undulating in a longitudinal direction with alternating convex and concave regions; the crush boxes being open on at least one side to facilitate thermoforming the thermoformed component, the crush boxes defining shapes selected from a group of shapes where at least one of the side walls defines a concavity.

60. (new) The system defined in claim 59, wherein the at least one side wall has a shape consisting of one of the following shapes: I, H, C, T, and X.

61. (new) The system defined in claim 60, wherein the side walls of the crush boxes include at least two different ones of the shapes I, H, C, T, and X.

62. (new) The system defined in claim 59, wherein at least one of the crush boxes is elongated to at least two times its width, the elongation being in a direction parallel a length of the beam.

63. (new) The system defined in claim 59, wherein the thermoformed component further has a rearwardly-extending feature formed into the base sheet that extends into one channel

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formed in the face of the beam for assisting in retaining the energy absorber on the face during a vehicle crash.

64. (new) The system defined in claim 59, wherein at least half of the crush boxes are less than about 35 mm high.

65. (new) The system defined in claim 64, wherein the crush boxes vary in height.

66. (new) The system defined in claim 59, wherein the base flange is flexible and bendable, such that the thermoformed component is bendable to engage the face of the beam despite a difference in shape when in an unstressed unattached state.

67. (new) The system defined in claim 59, wherein at least one of the walls of the crush box includes an offset that, upon receiving an impact causing the system to move through a stroke, overlappingly wraps back onto itself during the stroke.

68. (new) An energy absorbing system comprising:
a beam having a face;
an energy absorber abutting the face including a thermoformed component; and
a cover covering the beam and the energy absorber;
the thermoformed component having a base sheet adjacent the face and a plurality of crush boxes extending forwardly from the base sheet into engagement with the fascia; the crush boxes each having opposing side and front walls that define orthogonally-related planes, and also having top and bottom walls that are undulating in a longitudinal direction with alternating convex and concave regions; the crush boxes being open on at least one side to facilitate thermoforming the thermoformed component.

69. (new) The system defined in claim 68, wherein the crush boxes define shapes selected from a group of shapes consisting of the shapes I, L, C, O, T, X, Z, H, W, and +.

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70. (new) The system defined in claim 69, wherein the crush boxes include at least two different ones of the above shapes.
71. (new) The system defined in claim 70, wherein one of the two different shapes defines a "C" shape.
72. (new) The system defined in claim 69, wherein at least two of the selected different shapes are located in alternating positions across a length of the beam.
73. (new) The system defined in claim 68, wherein at least one of the crush boxes includes side walls and top and bottom walls defining a concavity facing in a direction parallel a length of the beam.
74. (new) The system defined in claim 68, wherein some of the crush boxes define a "C" shape and other of the crush boxes define one of an "H", "X", or "+" shape.
75. (new) The system defined in claim 68, wherein at least one of the crush boxes is elongated at least two times its width.
76. (new) The system defined in claim 68, wherein at least one of the crush boxes extends at least about half a length of the beam.
77. (new) The system defined in claim 68, wherein the thermoformed component further has a rearwardly-extending feature formed into the base sheet that extends into one channel formed in the face of the beam for assisting in retaining the energy absorber on the face during a vehicle crash.
78. (new) The system defined in claim 68, wherein at least half of the crush boxes are less

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than about 20 mm high.

79. (new) The system defined in claim 68, wherein the crush boxes vary in height.

80. (new) The system defined in claim 68, wherein the base sheet is flexible and bendable, such that the thermoformed component is bendable to engage the face of the beam despite a difference in shape when in an unstressed unattached state.

81. (new) The system defined in claim 68, wherein at least one of the walls of the crush box includes an offset that, upon receiving an impact causing the bumper system to move through a stroke, overlappingly wraps back onto itself during the stroke.